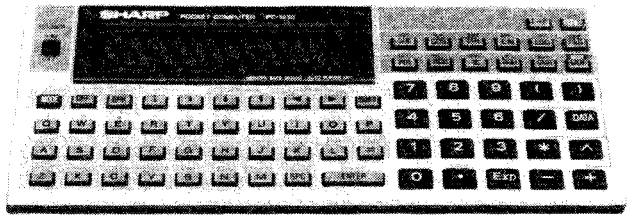
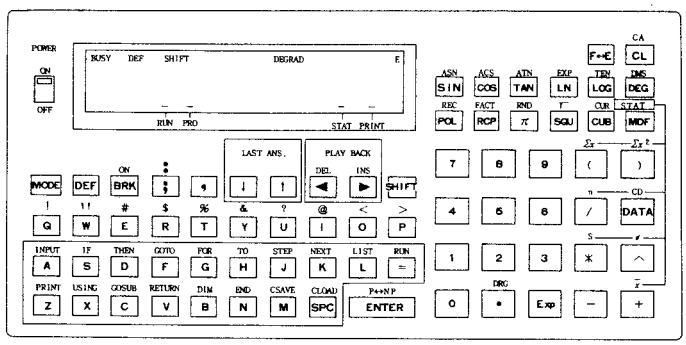
SHARP SERVICE MANUAL

CODE : 00ZPC1430SM/E

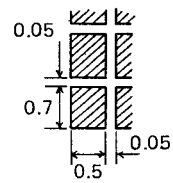


MODEL PC-1430

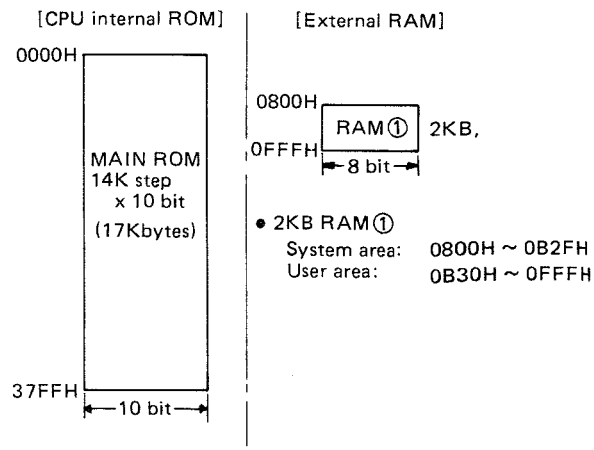
1. KEY LAYOUT



2. SPECIFICATIONS

Calculating Capacity:	10 digits (mantissa) + 2 digits (exponent)
Calculating System:	Algebric system (with priority judgement function)
Programming Language:	BASIC
CPU:	4 bit CMOS
System ROM:	17.4K bytes
Memory Capacity:	System Area About 0.5K bytes Area dedicated to data 208 bytes Program/data area 1254 bytes
Stack:	Sub-routine: 10 stacks For-NEXT: 5 stacks Function: 16 stacks Data: 8 stacks
Operators:	Basic calculations: Addition, substraction multiplication, division Function calculations: Trigonometric and inverse trigonometric functions, logatithmic and exponential functions, angle conversion, square root, interger, absolute, sign operators, π.
Editing Features:	Cursor left and right (▶, ◀), character insert (INS), character delete (DEL), line up and down (↓, ↑)
Memory Protection:	Battery backup (the contents of programme and its data are retained at power-off.)
Display:	 16-character liquid crystal display with 5 x 7 dot characters (LF7142E) Character dimensions: 5.2(H) x 2.7(W)mm Character pitch: 3.45 mm
Operating Temperature:	0°C ~ 40°C (32°F ~ 104°F)
Power Supply:	6V DC Lithium cells Type: CR-2032
Operating Time:	Approx. 75 hours Battery will last for a period of 2.4 months, assuming the use of one hour a day which consists of 10 minutes of operation or program execution and 50 minutes of displaying.
Power Consumption:	0.07 W
Dimensions:	170(W) x 72(D) x 9.5(H)mm
Weight:	125g (with cells)
Auto power off time:	Approx. 11 minutes
Options:	CE-124, CE-125, CE-126P, CE-152

3. MEMORY MAP



4. CPU (SC61720D07)

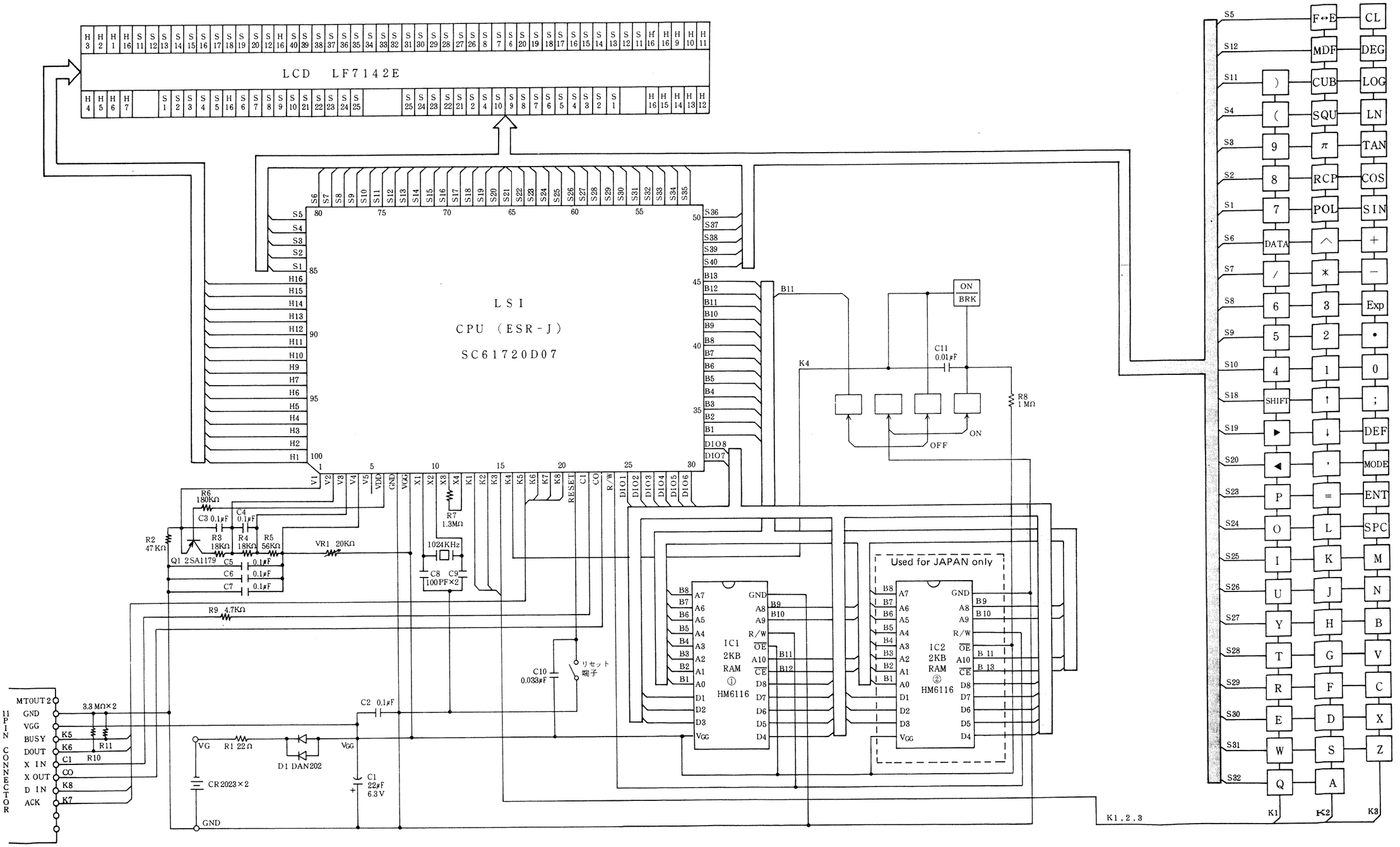
A 100-pin, 4-bit, microprocessor used in this model has a 17KB ROM and display chip within the chip. What it differs from the conventional microprocessor is that it has no iternal RAM but uses an external RAM for execution.

- CPU signal description

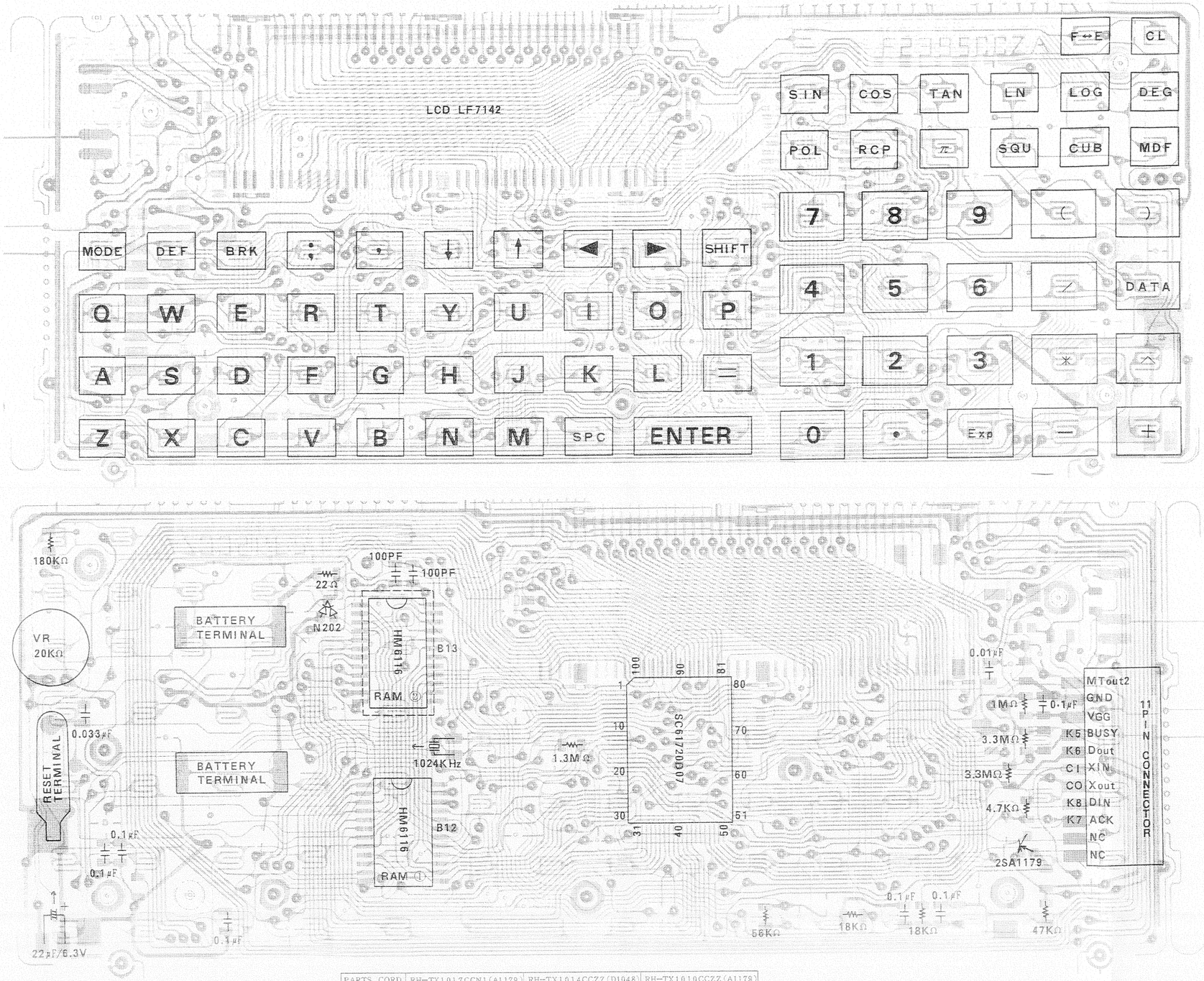
Pin No.	Signal name	In/Out	Function standby = power off
1	V1	In	LCD driving power
2	V2	In	LCD driving power
3	V3	In	LCD driving Power
4	V4	In	LCD driving Power
5	V5	–	NC
6	VDD	Out	LCD drive power, high during standby.
7	GND	In	Power supply
8	VGG	In	Power supply, normally low
9	X1	Out	System clock oscillation output
10	X2	In	System clock oscillation input
11	X3	Out	Display clock oscillation output
12	X4	In	Display clock oscillation input
13	K1	In	Key input, normally low
14	K2	In	Key input, normally low
15	K3	In	Key input, normally low
16	K4	In	Key input, normally low
17	K5	Out	BUSY I/F output port
18	K6	Out	Used for peripheral data output port (Dout).
19	K7	In	ACK signal. Enables the I/O (PCU) to read data from the CPU.
20	K8	In	Data in. Serial data input from the PCU (bit-to-bit serial handshake)
21	RESET	In	Reset input, normally pulled down to low level. Reset when high.
22	CI	In	Option cassette tape recorder interface input
23	CO	Out	Option cassette tape recorder interface signal/buzzer signal output
24	R/W	Out	Write clock, normally high
25	DIO1	In/Out	Data bus, normally low
〃	〃	〃	〃
32	DIO8	In/Out	Data bus, normally low
33	B1	Out	Address bus, low during standby.
〃	〃	〃	〃
43	B11	Out	Address bus, low during standby.
44	B12	Out	RAM ① chip enable
45	B13	Out	NC
46	S40	Out	LCD segment signal/key strobe, low or high during standby and 4-level pulse during display.
〃	〃	〃	〃
85	S1	Out	LCD segment signal/key strobe, low or high during stnadby and 4-level pulse during display.
86	H16	Out	LCD backplate signal, low or high during standby and 4-level pulse during display.
〃	〃	〃	〃
100	H1	Out	LCD backplate signal, low or high during standby and 4-level pulse during display.

Note) Standby, H1 ~ H16 and S1 ~ S40: All low level or high level.

5. CIRCUIT DIAGRAM

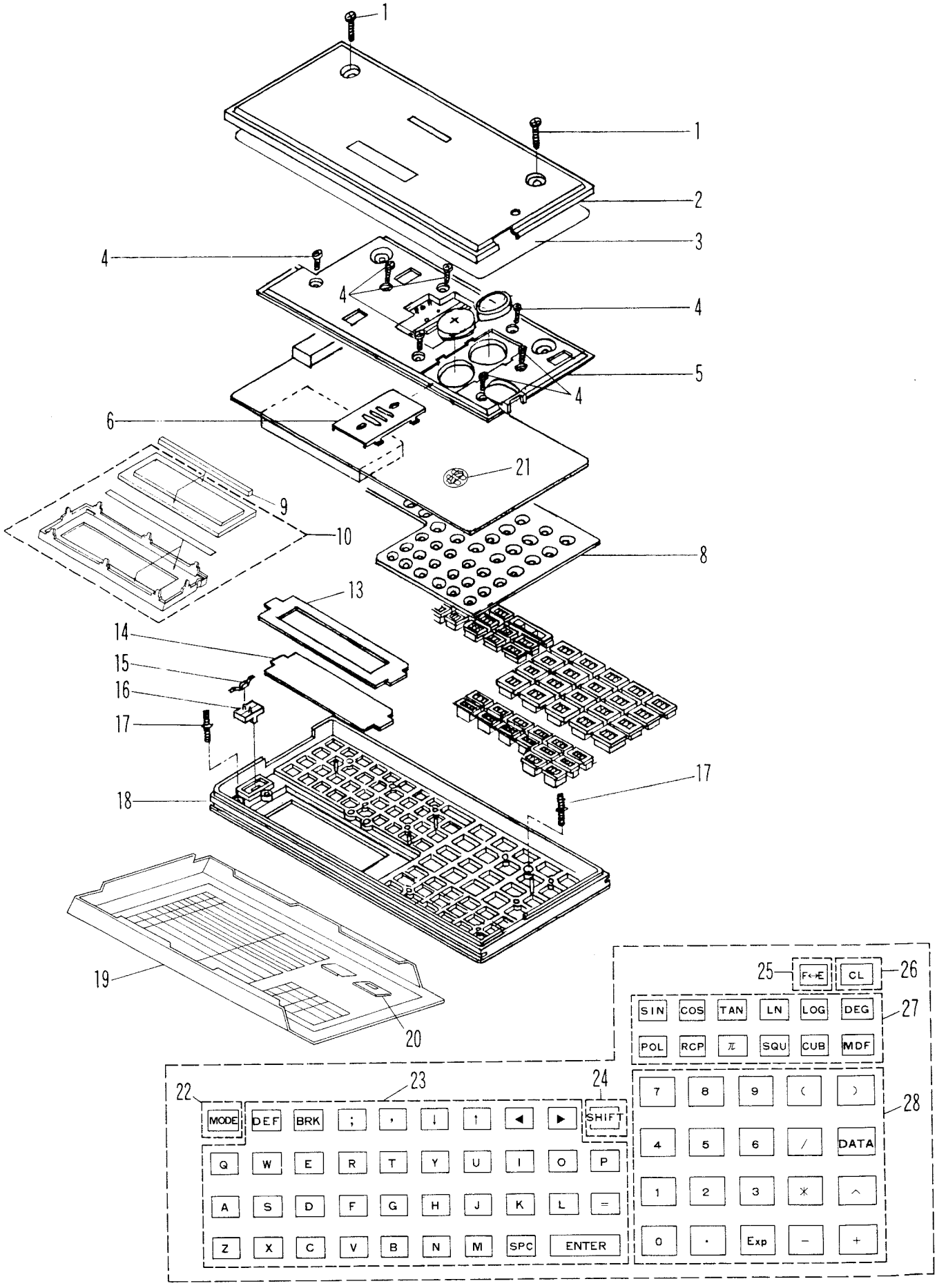


6. PARTS & SIGNALS POSITION



PARTS CORD	RH-TX1017CCN1(A1179)	RH-TX1014CCZZ(D1048)	RH-TX1010CCZZ(A1179)
FORM	C M hFE rank B E	C X hFE rank B E	C M hFE rank B E
hFE RANK	M5, M6, M7	X6, X7	M6, M7

Note) RAM ② : Used for JAPAN only.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